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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,466	05/29/2001	David Bongfeldt	9-15000-7US	3736

7590 03/08/2004

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EXAMINER

NGUYEN, DUC M

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,466

Applicant(s)

BONGFELDT, DAVID

Examiner

Duc M. Nguyen

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 27-31 and 53 is/are rejected.
- 7) ☒ Claim(s) 6-26 and 32-52, 54-68 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2, 5, 6</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 5/29/01, 7/3/02 and 6/24/02 have been considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1-2, 4-5, 27-28, 30-31, 53** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hutchison** (US 3,411,088).

Regarding claim 1, **Hutchison** discloses an automatic gain control method for a broadband amplifier wherein a plurality of filter networks, each having a preassigned transmission band or channel is used to detect the presence of a signal in each channel and their magnitude is used for controlling the power input to the amplifier (see Fig. 1 and col. 1, line 25 – col. 13), this would include all the claimed limitations, wherein the magnitude of a signal outputting from a bandpass filter would read on a "narrowband

detector” as claimed because it is clear that the signal outputting from the bandpass filter has a narrowband as compared to the broadband signal received by the repeater. Further, since the error signals from the comparator circuit is used for controlling the power input to the amplifier by means of a variable impedance, with the broadest reasonable interpretation, the comparator circuit would read on the “controller” as claimed. Further, it is clear that a repeater is obviously used to relay signals between two transceivers as claimed. Therefore, the claimed limitations are made obvious by Hutchinson for providing a repeater with a controller as claimed, to insure nonsaturated operation of a repeater capable of accommodating a plurality of intelligence signal.

Regarding claim **2**, it is rejected for the same reason as set forth in claim 1 above. In addition, it would have been obvious to configure the repeater with the full duplex capability in order to simultaneously process respective first and second RF signals as claimed, for utilizing a two-way repeater while minimizing delays in transmission relays.

Regarding claim **4**, it is rejected for the same reason as set forth in claim 2 above. In addition, it is clear that each wideband signal path would inherently comprise a bandwidth as claimed.

Regarding claim **5**, it is rejected for the same reason as set forth in claim 2 above. In addition, since the bandwidth is mostly allocated in accordance with FCC regulations, it would have been obvious to select a bandwidth of 25 MHz for compliance with FCC regulation in a particular region.

Regarding claims **27-28, 30-31, 53**, the claims are interpreted and rejected for

the same reason as set forth in claims 1-2, 4-5 above.

4. Claims **3, 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hutchison** in view of **Kawano** (US 4,754,495).

Regarding claim **3**, it is rejected for the same reason as set forth in claim 2 above. Although **Hutchison** fails to disclose the narrow band detector and the controller are shared by the first and second wideband signal paths, such sharing is known in the art as disclosed by **Kawano** by simply using duplexers (see Fig. 3, refs. 3, 4). Therefore, it would have been obvious to one skill in the art to provide the above teaching of **Kawano** to **Hutchinson** for utilizing duplexers so that transmission power control of uplink and downlink path be shared by the same detector, comparator and/or amplifier, for cost saving.

Regarding claim **29**, the claim is rejected for the same reason as set forth in claim 3 above.

Allowable Subject Matter

5. Claims 6-26, 32-52, 54-68 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 6, 32, 54, the cited prior art fails to disclose or make it obvious a method or apparatus for controlling transmission power of a repeater which comprises

steps as specified in the claims, wherein two gain control blocks are adapted to selectively control gains of signals received by the first transceiver and transmitted by the repeater to the second transceiver.

As to claims 14, 40, the cited prior art fails to disclose or make it obvious a method or apparatus for controlling transmission power of a repeater wherein the narrowband detector comprises components and steps as specified in the claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Marron (US Pat No. 3,835,393), Duplex cable communications network employing automatic gain control utilizing a band limited noise AGC pilot.

Magneron (US Pat No. 4,061,970), Transmission system and repeater station therefor.

Ge (US Pat No. 6,681,100), Smart amplifier for time division duplex wireless application.

Leslie et al (US Pat No. 5,095,528), Repeater with feedback oscillation control.

Anvekar et al (US Pat No. 6,594,475), Mobile battery discharge minimization in indoor wireless networks by antenna switching.

8. **Any response to this action should be mailed to:**

Commissioner of Patent and Trademarks

Washington, D.C. 20231

or faxed to:

703-872-9314 (for formal communications intended for entry)

(for informal or draft communications, please label PROPOSED or DRAFT)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc M. Nguyen whose telephone number is 703-306-4531. The examiner can normally be reached on Monday-Thursday (9:30 AM – 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Duc M. Nguyen
Mar 4, 2004

